

REMARKS

Claims 1-11 are pending. Reconsideration and allowance are respectfully requested.

Allowable Subject Matter

Claim 1-11 are indicated as having allowable subject matter.

Amendments to the Claims

Claims 1 and 4 have been amended as follows, where strikethrough and underlines respectively denote deletions and addition from Claims 1-11 (as previously presented):

1. (Twice Amended) A method of filtering a stream of sampled acoustic signals, comprising the steps of:
 - partitioning stream of sampled acoustic signals into a sequence of frames;
 - Fourier transforming the frames using processing circuitry to yield a sequence of transformed frames;
 - applying a generalized Wiener filter to the transformed frames to yield a sequence of filtered transformed frames, wherein the filter uses power spectrum estimates from line spectral frequencies (LSFs) defined as weighted sums of LSFs of a codebook of LSFs with the weights determined by the LSFs of the transformed frames; and
 - inverse Fourier transforming said sequence of filtered transformed frames to yield a sequence of filtered frames.
4. (Thrice Amended) A method of noise suppression filtering for a sequence of frames of noisy speech, comprising:
 - filtering a frame of noisy speech that includes the sub-steps of:
 - estimating a noise power spectrum, $P_{\text{NOISE}}(\omega)$, of the frame of noisy speech, wherein the variable ω is the discrete frequency;
 - computing a noisy speech power spectrum for the frame of noisy speech using processing circuitry;
 - smoothing noisy speech power spectrum with respect to the variable ω to yield a smoothed noisy speech power spectrum, $P_{\text{SMOOTHEDNOISYSPEECH}}(\omega)$, for the frame of noisy speech;
 - defining a noise-suppression filter using the noisy speech power spectrum, and the smoothed noisy speech power spectrum;
 - filtering the frame of noisy speech with the noise suppression filter; and

repeating the step of filtering for each frame of noisy speech for a plurality of frames of noisy speech.

Rejections under 35 U.S.C. §101

Claims 1-11 stand rejected under 35 U.S.C. §101 for assertedly being directed to non-statutory subject matter. Insofar as they may be applied to the claims, these rejections have been overcome because Applicants have included the limitation of “using processing circuitry” into Claims 1 and 4 (which is supported by column 5, line 59 to column 6, line 10). Inclusion of this limitation into Claims 1 and 4 would indicate that Claims 1-11 would most clearly satisfy the machine-or-transformation test per the example at page 26 (of the pdf) for the “New Interim Patent Subject Matter Eligibility Examination Instructions” dated August 24, 2009 (http://www.uspto.gov/web/offices/pac/dapp/opla/2009-08-25_interim_101_instructions.pdf). Accordingly, Applicants respectfully request that the rejections of Claims 1-11 under 35 U.S.C. §101 be withdrawn.

Claim Objection

At page 3 of the Final Action, the Examiner asserts that the preamble of Claim 4 includes the phrase “if noisy”; however, Applicants corrected the preamble to read as “of noisy” in the previous response. Therefore, Applicants request that any objections to Claim 4 be withdrawn.

Conclusion

Applicants respectfully request full allowance of Claims 1-11.

Applicants do not believe that any fees are due; however, in the event that any fees are due, the Commissioner is hereby authorized to charge any required fees due (other than issue fees), and to credit any overpayment made, in connection with the filing of this paper to Deposit Account 20-0668 of Texas Instruments Incorporated.

Should the Examiner require any further clarification to place this application in condition for allowance, the Examiner is invited to telephone the undersigned at the number listed below.

Respectfully submitted,

/John J. Patti/

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EXHIBIT A
STATUS OF PENDING CLAIMS AND SUPPORT FOR AMENDMENTS

Claims 1-11 are pending in this reissue application as currently amended herein. Support for these claims and the amendments thereto are as follows:

Claims 1-3 are supported by Claims 1-3 in their original form as issued in U.S. Patent No. 6,263,307 but have been amended to:

- remove the indexes (i.e., (a), (b), etc.) and the references to these indexes because index (a) was repeated in Claims 2 and 3 and could create confusion;
- replace “a stream” with “the stream” because “a stream” is recited in the preamble of Claim 1;
- replace “said” with “the”;
- include the term “line spectral frequencies” which corresponds to “LSF”; and
- include the limitation “using processing circuitry” in Claims 1, which is supported by the specification at Col. 5, l. 59 – Col. 6, l. 10.

Claim 4 is supported by the specification at Col. 8, l. 10 – Col. 9, l. 25 and Col. 5, l. 59 – Col. 6, l. 10.

Claim 5 is supported by the specification at Col. 8, l. 10 – Col. 9, l. 25.

Claim 6 is supported by the specification at Col. 8, l. 10 – Col. 9, l. 25.

Claim 7 is supported by the specification at Col. 8, l. 10 – Col. 9, l. 25.

Claim 8 is supported by the specification at Col. 8, l. 10 – Col. 9, l. 25.

Claim 9 is supported by the specification at Col. 8, l. 10 – Col. 9, l. 25.

Claim 10 is supported by the specification at Col. 8, l. 10 – Col. 9, l. 25.

Claim 11 is supported by the specification at Col. 8, l. 10 – Col. 9, l. 25.